

Commercial perspectives panel & discussion

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Commercial issues & perspectives

- **The classical Wind Diesel deadlock is still with us. Stated (maybe too) simplistically there are**
 - Those with the need. They have no money
 - Those with the money. They have no confidence in the product
 - Those with the product. They have no market
- **We need those with the money (communities, development banks & other investors) to tell us & the commercial actors what they require from a project to consider it viable / bankable**
- **We & the commercial actors need to tell those with the needs and those with the money what they can get now & how we will develop what they cannot get today**
- **We all need**
 - a solid well documented track record of systems that work well in the communities they serve.
 - A solid & good understanding of how to make projects with systems doing just that

Cost of Wind Energy vs. Value

- **Costs can often be quite realistically assessed**
 - Confidence in COE and its development in time from WE systems depends on the system
 - Well defined and documented for grid connected WT's & wind farms
 - More difficult to assess from hybrid systems and distributed generation schemes, but possible for well defined resources and consumer loads
 - Still quite speculative for systems or schemes including energy storage & energy carriers
- **Value is more difficult to assess**
 - Lack of internationally agreed methods & measures to determine the value of wind energy to compare with costs of alternatives
 - Value of e.g. externalities & optional/deferrable loads such as heat, water etc.
 - True cost of e.g. conventional power for comparison excl. e.g. subsidies (Example: Price of NG in Denmark is coupled to the price of oil)
 - System Operators are beginning to set values in Nordpool for
 - Predicted power (or even balance power) from wind farms (given ability to predict & control)
 - Black start capability (given proper power electronics/storage equipment)
 - More is coming
- **What time scale to use in the assessment?**

Wind Diesel – Where to go from here?

- **Improving credibility must be an international effort including**
 - An international set of well documented references to projects with systems that work
 - An internationally agreed set of guidelines / best practices for how to make such projects & systems
- **Improving the technical credibility of the systems should include**
 - Verification & documentation of WD – turbines on par with today's utility turbines
 - Better understanding & documentation of the storage technologies available for WD systems
- **We could use an international strategy to connect the WD technology with the immense global need & potential market. The most important component is**
 - Persistence (best example today: NREL's Village Power Program)